DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-027965
Date Inspected: 15-Jul-2012

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 700
OSM Departure Time: 1530
Location: Job Site

CWI Name:	William Sherwood			**CWI Present:**	☑ Yes	☐ No		
Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A	
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A	
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☑ Yes	☐ No	☐ N/A	
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Approved WPS:**	☑ Yes	☐ No	☐ N/A	
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A	

Bridge No: 34-0006
Component: SAS Tower

Summary of Items Observed:

Caltrans Office of Structural Material (OSM) Quality Assurance Inspector (QAI) Joselito Lizardo was present at the Self Anchored Suspension (SAS) job site as requested to perform observations on the welding of components for the San Francisco Oakland Bay Bridge (SFOBB) Project.

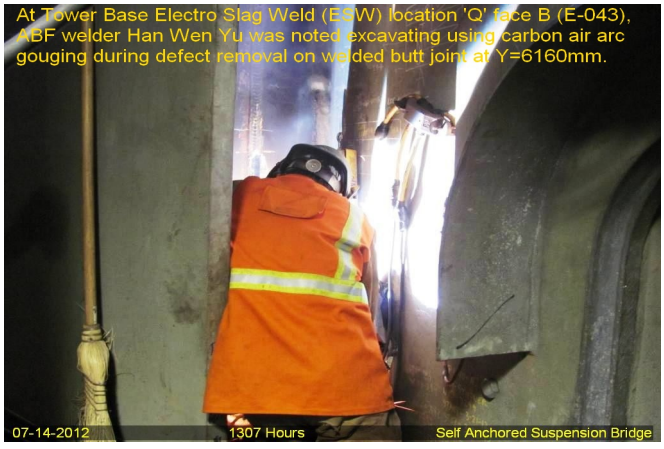
At OBG 12W-W2.1-C1 inside, QA randomly observed ABF/JV qualified welder Jin Pei Wang perform fill pass to cover pass welding on the Complete Joint Penetration (CJP) splice butt joint. The welder was observed manually welding in the 1G (flat) position utilizing a Flux Cored Arc Welding (FCAW-G) with E71T-1M, 1/16” diameter wire electrode and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-3040A-1. The joint being welded has a single V-groove butt joint with backing bar that will be removed and back gouged. The plates were preheated and maintained to required temperature of 200°F using Miller Proheat 35 Induction Heating System with the heater blanket put in place at the other side of the joint being welded. During welding, ABF Quality Control (QC) William Sherwood was noted monitoring the welding parameters of the welder with measured working current of 255 amperes and voltage of 23.5 volts. During the shift, cover pass FCAW-G welding at weld joint mentioned above from Y=9500mm to 12000mm was completed and the welded joint deemed satisfactory. The welder held the same preheat of 200°F for three (3) hours after welding as required.

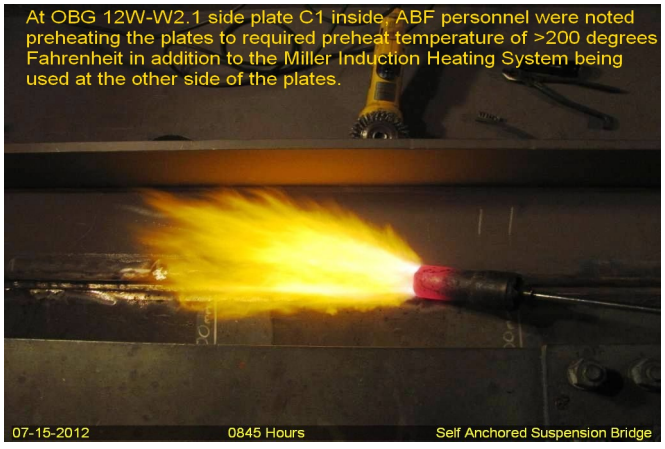
At OBG 12W-W2.1-C1 inside, QA randomly observed ABF/JV qualified welder Xiao Jian Wan perform fill pass to cover pass welding on the Complete Joint Penetration (CJP) splice butt joint. The welder was observed manually welding in the 1G (flat) position utilizing a Flux Cored Arc Welding (FCAW-G) with E71T-1M, 1/16” diameter wire electrode and implementing Caltrans approved Welding Procedure Specification (WPS)

ABF-WPS-D15-3040A-1. The joint being welded has a single V-groove butt joint with backing bar that will be removed and back gouged. The plates were preheated and maintained to required temperature of 200°F using Miller Proheat 35 Induction Heating System with the heater blanket put in place at the other side of the joint being welded. During welding, ABF Quality Control (QC) William Sherwood was noted monitoring the welding parameters of the welder with measured working current of 285 amperes and voltage of 23.0 volts. During the shift, cover pass FCAW-G welding at weld joint mentioned above from Y=7000mm to 9500mm was completed and the welded joint deemed satisfactory. The welder held the same preheat of 200°F for three (3) hours after welding as required.

At the request of Quality Control Field Supervisor, Bonifacio Daquinag, QA has randomly verified the QC VT/MT of the following various welded joints. The QA verification was performed to verify that the welding and the VT/MT inspection performed by the QC inspector meet the requirements of the contract documents. At the conclusion of the QA verification it appeared that the weld and the QC inspection complied with the contract documents.

1. 13E-PP123.5-E2.1 BW1 – floor beam web splice butt weld joint QA verified.
2. 13E-PP123.5-E2.1 BF1 – floor beam flange splice butt weld joint QA verified.
3. 13E-PP124-E2.2 BW1 – floor beam web splice butt weld joint QA verified.
4. 13E-PP124.5-E2.2 BW1 – floor beam web splice butt weld joint QA verified.
5. 13E/14E-LS7 – longitudinal stiffener splice butt weld joint QA verified.





WELDING INSPECTION REPORT

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Summary of Conversations:

No significant conversation ocurred today.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact SMR Nina Choy 510-385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Lizardo,Joselito	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer